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DEC-08-2004 08:09 FROM: JASON Z LIN

TO: USPTO

P.002/015

Serial Nr.: 10/603,423

Art Unit: 1711

03165-UPS

**AMENDMENTS TO THE SPECIFICATION:** 

Page 2, amend paragraph [0005] as:

[0005] As regards With regard to the thermal initiated process in forming contact

lenses, the as-known shortage arises from its relatively long processing cycle that is

needed to obtain a lens with a good quality. Consequently, the other alternative- photo

polymerization has been proposed to manufacture UV absorbing contact lenses. For

example, U.S. Pat. No. 5098445 discloses a contact lens with UV absorbing agent

covalently bonded after the lens is photo polymerized. The UV absorber is reacted with

the hydroxyl group in the formed lens by dipping the lens in an aqueous solution having

dissolved halotriazine compound with UV absorbing moiety under alkaline condition. A

similar process is also disclosed in U.S. Pat. [[Nos.]] No. 5,399,692. Yet, it is argued that

the triazinyl molecule is detrimental to the physical and optical properties of the lens.

Uncertainty in the degree of reaction during the bonding step of halotriazine with the lens

materials also arises, which limits the application of the technique.

Pages 2-3, amend paragraph [0006] as:

[0006] U.S. Pat. [[Nos.]] No. 5,914,355 discloses a process to prepare an UV

absorbing contact lens after the lens is photo cured. In the process, a derivative of the UV

absorbing benzotriazole compound is transformed into a non-UV absorbing material by

replacing the hydroxyl group of the phenol moiety with a convertible protective group.

This essentially non-UV absorbing agent with reactive vinyl group is added in the lens-

forming monomer mixture and photo cured. The formed lens is then changed to be UV

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absorbing by converting the protective group back to a hydroxyl moiety in an alkaline

environment. This conversion process requires a series of tedious reaction processes. To

overcome this shortage, U.S. Pat. [[Nos.]] No. 5,945,465 discloses a similar process but

using the photo-Fries rearrangement to deactivate the protective group during UV

exposure. Yet, there are still uncertainties in the degree of conversion in the deactivating

step.

Page 3, amend paragraph [0009] as:

[0009] To obtain a high UV absorption ability, the use of the dual UV absorption

compounds that absorbing absorb UV in different wavelengths was proposed. In U.S.

Pat. [[Nos.]] No. 4,963,160, a method of bonding two UV compounds with different UV

absorbing spectra onto a triazine derivative was proposed. The proposed UV absorption

compound requires multiple synthesis procedures to accomplish and needs an additional

bonding step to react with the as-formed lens. A similar invention is disclosed in U.S.

Pat. [[Nos.]] No. 6,244,707 in which both benzophenone and benzotriazole derivatives

with different UV absorbing power but all containing the mono vinyl group are

copolymerized with the lens forming materials to have a strong UV blocking property.

Page 4, amend paragraph [0010] as:

[0010] In summary, these UV absorbers usually suffer one or some of the undesired

nature such as long reacting time, low conversion, uncertainty in the degree of reaction,

leach of unreacted UV absorber, yellowness, inconsistent integrity of the formed lens,

expensive reactant used, and tedious reacting process. Henceforth, there exists a need for

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preparing an improved UV absorbing compound [[that]] without the aforementioned

shortages.

Page 4, amend paragraph [0013] as:

[0013] It is a further object to provide a UV absorbing lens comprising the

crosslinkable UV absorbing agent. The crosslinkable UV absorbing agent is needed only

by a small amount in the contact lenses to obtain a great UV absorbing effect and exhibits

negligible yellowness of the lenses. The bonding between the lens and the UV absorbing

material is very stable, and the UV absorbing material does not leach out of the lens. The

lens maintains remains the UV absorbing power after five cycles high temperature aging

in the autoclave.

Pages 4-5, amend paragraph [0014] as:

[0014] The method for preparing the crosslinkable UV absorbing agent comprises the

[[step]] steps of preparing a mixture of reactants comprising a UV absorbing compound

(A) with multiple pendant hydroxyl groups and an unsaturated monoglycidyl compound

(B) with both reactive glycidyl and vinyl groups; mixing a base catalyst (C) with the

mixture of reactants; initiating a synthesis reaction of the crosslinkable UV absorbing

agent under heat; and recovering the resulting product after the synthesis reaction is

completed.

Pages 5-6, amend paragraph [0020] as:

[0020] The method of the present invention comprises comprising the steps of:

preparing a mixture of the reactants comprising a UV absorbing compound (A) with

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multiple pendant hydroxyl groups and an unsaturated monoglycidyl compound (B) with

both reactive glycidyl and vinyl groups, mixing a base catalyst (C) with the mixture of the

reactants; and initiating a synthesis reaction under heat and to recover the resulting

product after the synthesis reaction is completed.

Page 7, amend paragraph [0026] as:

[0026] It is important that the UV absorbing compound (A) is well dissolved in the

unsaturated monoglycidyl compound (B). A homogeneous liquid mixture containing the

two reactants is formed before and after reaction. It is the most important thing that the

resulting product after synthesis reaction is completely soluble in the lens forming

materials before and after curing. In the aforementioned U.S. Pat. [[Nos.]] No. 3,162,676,

a much less amount of the unsaturated monoglycidyl acrylate was used in the synthesis

and was not able to form a homogeneous liquid solution before or after the reaction. The

incorporation of inhomogeneous UV absorbing compound in the lens formulation results

in a lens with the defects as puddle and overly curved shape. An abundant residual

monomer content could also be found in these defected lenses.

Page 7, amend paragraph [0027] as:

[0027] In synthesis of the crosslinkable UV absorbing agent, the unsaturated

monoglycidyl compound (B) used is in a concentration far excess of the stoichiometric

amount over the UV absorbing compound (A), preferably 140 to 250 parts based on the

100 parts of the UV absorbing compound (A). The unsaturated monoglycidyl compound

(B) may also be up to 300 parts. The great excess of the unsaturated monoglycidyl

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compound (B) added ensures the formation of a homogeneous liquid mixture of reactants and lead to a homogeneous liquid crosslinkable UV absorbing product with a high conversion of the UV reactant and a multiple vinyl functional groups after the reaction.